

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Confirm. No.: 8910

CARLBERG et al

Atty. Ref.: 2380-188

Serial No. 09/935,759

TC/A.U.: 2664

Filed: August 24, 2001

Examiner: Nguyen, B.Q.

For: DISTRIBUTION OF CONNECTION HANDLING IN A
PROCESSOR CLUSTER

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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

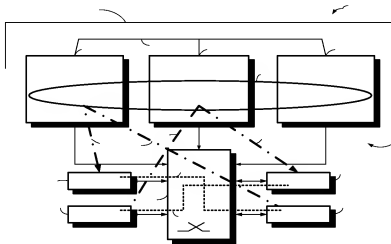
PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated on the attached sheet(s).

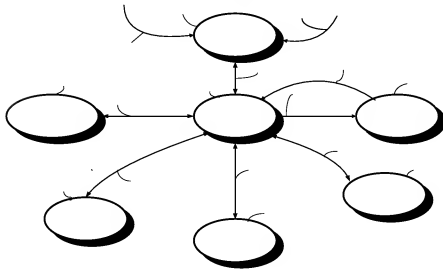
REASON(S) FOR REVIEW

SUBJECT MATTER OF THE APPEAL

Independent apparatus claim 81 and independent method claim 84 both recite a data communications network comprising a switch (22), plural user plane resources (24) connected to the switch, and connection handling functionality (26) which is distributed over a cluster of the plural processors. See Fig. 1 embedded below.



The connection handling functionality comprises software objects configured for setup or release of connections; with the software objects including a connection object (102) configured to activate a resource user plane control object (108) corresponding to a particular user plane resource involved in a bearer service connection.



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THE REJECTIONS

Claims 81, 82, 84, 85, 73, 77, 74, 78, 1-5, 7-9, 11, 12, 14-16, 18-20, 22-27, 36-40, 42-44, 46, 47, 49-51, 53-55 and 57-62 stand rejected under 35 USC §102(e) as being anticipated by U.S. Patent 6,891,833 to Caves et al. Claims 13, 17, 48, 52, 75, 79, 83, and 86 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent 6,430,189 to 6,891,833 to Caves.

PATENTABILITY OF THE CLAIMS

Aside from the issue of distribution of connection handling functionality over a cluster of processor, Caves certainly does not disclose a structure of software objects as recited in the present independent claims. Actually, Caves does not discuss software much (if at all). Caves does not teach or suggest any software objects which correspond to the resources of Cave's pool 63, much less the activation of any resource-corresponding objects by a connection object.

Pages 3 *et seq* of the office action appear to allege that Caves teaches software objects merely because Caves has an AAL2 signaling server that gives instructions (col. 5, lines 15 – 18) and has a “control element”. While liberally quoting from Applicants' claims as if the verbiage were from Caves, the office action only punctuates Applicants' claim language with unexplained references numerals/figure numbers/or sentence citations to Cave. The office action does not provide any explanation of how Caves' mere presence of a signaling server or control element can be interpreted to anticipate Applicants' software object structure, among other claim limitations.

The Advisory Action (dated March 5, 2008) endeavors to explain that “the ordinary person in the art knows that a software object is the individual run-time unit that is used as the basic building block of programs”. While software objects are used in certain object-oriented programs, they are not used in all programs. Caves does not purport to have an object-oriented software structure, and in fact is virtually silent regarding software. But

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despite the fact that object-oriented programming is known per se (although not used by Caves!), there is no teaching or suggestion to structure the objects in the manner of Applicants' claims (connection objects and resource user plane control objects) and to have those objects interact as claimed (with the connection object being configured to active resource user plane control object, the resource user plane control object corresponding to a particular user plane resource involved in the connection).

The Advisory Action also appears to equate Caves' purported AAL2 signaling protocol of col. 3, lines 35 – 37, with a software object. Software objects are a module that “include coded instructions as well as data utilized in conjunction with those instructions data and instructions” (see Applicants' specification, page 15, lines 23 – 25) that can be executed, e.g., on a processor of a node, whereas signals AAL2 signaling protocol is merely a protocol or formatting of information transmitted between nodes.

Applicants' particular structure of software objects facilitates distribution of objects involved in a connection over plural processors comprising a processor cluster. See, for example, dependent claims 83 and 86 which refer to executing the software objects for the connection on different processors of the cluster of plural processors.

Caves' AAL2 port and switch modules, which are controlled by Caves' signaling servers, are hardware modules rather than software modules. Caves' resources pool 63 comprises devices which are connected to certain ones of the switch modules (col. 9, lines 20 *et seq.*) Caves does not teach or suggest any software objects which correspond to the resources of pool 63, much less the activation of any resource-corresponding objects by a connection object. The very fact that Caves' AAL2 port and switch hardware modules are located between resource pool 63 and the signaling servers further indicates that Caves does not teach or suggest Applicants' software object activating another software object approach for reserving and activating resources of a node.

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Even if Caves' control element (38, 58, 78) were construed to be a processor or the like which executes software (which is not certain), Caves never inputs to his control element any type of software structure, much less an object-oriented structure comprising "a connection object and a resource user plane control object, the connection object being configured to activate the resource user plane control object, the resource user plane control object corresponding to a particular user plane resource involved in the connection".

Furthermore, there is no indication that Caves' control element (38, 58, 78) is involved with resource allocation and activation. Rather, Caves' control element participates in signaling for the purpose of activating a central AAL2 switch (see, e.g., col. 6, lines 13 – 23; col. 6, lines 31 – 35; col. 7, lines 44 – 55; col. 7, lines 67 – col. 8, line 9; col. 9, lines 9 – 20; col. 9, lines 41 – 50).

Applicants believe that the office action is, in large measure, a hindsight infusion into Caves' "control element" of software structure not described by Caves. The rejections are thus improper, and certainly cannot stand as an alleged anticipation.

While addressing primarily the independent claims, Applicants also note that various dependent claims have separate patentable merit. By way of non-limiting and non-exhaustive example, dependent claims 3 and 38 (and numerous claims dependent thereon) concern, e.g., a predistributor which routes incoming signaling messages to an appropriate processor of the processor cluster. The office action equates the very same Caves' element (78) and same passage (9:15 – 20) as corresponding both to the Caves' control element and the predistributor. This double equation evidences the lack of specificity of the Caves' disclosure and Caves' failure to teach the software structural aspects of the Applicants' claims.

For reasons including those set forth above, upon pre-appeal review it is respectfully requested that the prior art rejections be withdrawn and the pending claims allowed.

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